## TIPULARIA DISCOLOR IN DUKES COUNTY, MASSACHUSETTS

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In the sixth edition of Gray's Manual (1889) the distribution of the Crane-fly Orchis, *Tipularia discolor* (Pursh) Nutt. (*T. unifolia* (Muhl.) BSP.) is given as "sandy woods, Vt. to N. J. and Fla., west to Mich.; very scarce."

The records which may have formed the basis for the inclusion of this species in the flora of Vermont or elsewhere in New England will be considered below; that they were subsequently discredited is evidenced by the fact that in the seventh edition of the Manual (1908) the plant is spoken of as "extending northw. to N. J.; reported but unverified from farther north."

Norman Taylor, in his "Flora of the Vicinity of New York," in addition to listing eight counties in New Jersey (five of them being from the extreme northern portion of the state) from which *Tipularia* has been reported, records its occurrence "near N. Y. City" and on Staten Island. These two latter localities, although not in New Jersey, still do not extend the range of the plant north of that state, but merely fit in with its distribution as understood in recent years.

Of greater interest is the record, likewise incorporated by Taylor, of the occurrence of this species at Greenport, Long Island, for this extends its known range significantly to the eastward. For our knowledge of the Greenport station we are indebted to Roy Latham, who also discovered the plant at Orient Point, Long Island, and has recently reported the finding of two colonies at Montauk Point, the easternmost extremity of the island.<sup>2</sup>

In view of the rather large number of species common to eastern Long Island and southeastern Massachusetts, it seemed natural to wonder, upon reading Latham's account of the Montauk locality, whether *Tipularia* might not reasonably be expected to belong in this category. The first intimation that such was actually the case came from a remark made by Professor Fernald to the writer to the effect that in the herbarium of the Boston Society of Natural History there was a specimen of this rare orchid collected on Martha's Vine-

<sup>&</sup>lt;sup>1</sup> Memoirs New York Bot. Gard., v. 259 (1915).

<sup>&</sup>lt;sup>2</sup> Latham, R. Torreya, xxvii. 51 (1927). True, the species there reported and discussed is T. uniflora, but this presumably refers to the plant under present consideration.

yard. A visit to the Boston Society, where, through the kindness of Mr. S. N. F. Sanford, the facilities of the botanical collections were made available, resulted in the discovery of two sheets in the *Tipularia* folder. Inasmuch as these have apparently escaped general notice a few words concerning each of them seem not to be amiss here.

One of the sheets bears a label which reads, "Dry woods on a declivity ½ mile N. of Luce's Tavern, Martha's Vineyard, Chilmark?" At the bottom of the sheet are pencilled the words, "Oakes coll." There is no further indication as to habitat, date or name of collector, although the abbreviation "coll." following Oakes's name may conceivably refer to "collector", rather than to "collection" as one would normally infer.

The other sheet carries a ticket with the inscription, "Herb. Oakes." as a heading. In addition to the name of the plant the only information given on this label is the locality "Martha's Vineyard," which is followed, in pencil, by the word "Chilmark." A printed slip affixed to the bottom of the sheet reads, "Herb. John A. Lowell."

It is entirely possible that these two specimens may represent the same collection or, at least, separate collections from the same locality. And just where that locality may have been is indeed a matter for conjecture. Speculation on this head is invited by the fact that the word "Chilmark" comes at the end of the legend on one of the labels, to be followed by a question mark, while on the other sheet it is written in with pencil, as though doubtfully correct. Was Luce's Tavern actually in Chilmark or was it in some other part of the island, as, for example, West Tisbury?

Unfortunately, the name of Luce is of such ubiquitous occurrence on the Vineyard that it is difficult, perhaps impossible, to answer this question, but there can be no doubt that the long line of wooded morainal hills extending from Menemsha northeast to West Chop offers many a habitat ideally suited to the requirements of this interesting orchid. Further, the contention that *Tipularia* was collected in some portion of Martha's Vineyard other than Chilmark is strengthened by the circumstance that Sydney Harris, whose intensive collecting from the Chilmark region covered a period of fourteen years (from 1891 to 1904) and whose many specimens from there represent important pioneer work in laying the foundations for such knowledge as we possess of the flora of the island, has left us no

record of the plant from an area with which we have every reason to suppose he was intimately familiar.

That *Tipularia* was well known to the earlier botanists from Martha's Vineyard becomes evident upon even a casual inspection of the literature. Oakes himself records the plant "In woods in Martha's Vineyard, Mass., 1829." In Torrey's Flora of the State of New York we find the statement, "Its northern limit, so far as I know, is Martha's Vineyard, where (I believe) it was found by Mr. Oakes." Similar references, augmented by reports of the species from elsewhere in Massachusetts and from Vermont, may be met with in local and state floras during the ensuing years and are summarized in 1884 by Baldwin, who tells us that *T. discolor* "straggles across the sandy woods of Massachusetts into Southern Vermont."

In preparing the present note, which aims merely to emphasize the occurrence of *Tipularia* in Dukes County, no attempt has been made to verify records of the plant from elsewhere in New England. The significant feature of the two herbarium sheets described above is that they constitute vouchers, apparently overlooked by some recent workers, to confirm the occurrence of the Crane-fly Orchis in southeastern Massachusetts.

During the winter of 1927–28 the writer, while pursuing a program of work at the Gray Herbarium, found in the library of that institution a typewritten list of the plants of Nashawena Island compiled by Mrs. Alice R. Northrop. In 1901, and again in 1903, Mrs. Northrop had visited Nashawena, which is one of the Elizabeth Islands in Dukes County, Massachusetts, and the list in question, which so far as is known has never been published, embodies the results of her own observations and contains the names of over three hundred ferns and flowering plants found by her on that island. Interestingly enough, Tipularia discolor (unifolia) is included in the flora of Nashawena by Mrs. Northrop, with the comment, "quite common in 3 or 4 localities, c. & n. e. part island."

Inasmuch as this list includes the names of several other species remarkable for their occurrence in southeastern New England, the writer at once set about ascertaining whether these records were corroborated by herbarium specimens. It was soon learned that

<sup>&</sup>lt;sup>1</sup> Wm. Oakes, in Hovey's Mag. vii. 184 (1841).

<sup>&</sup>lt;sup>2</sup> Torrey, Fl. N. Y. ii. 272 (1843).

<sup>&</sup>lt;sup>3</sup>Baldwin, Orchids of New England, 90 (1884).

Mrs. Northrop had done a certain amount of collecting and that her specimens had been presented to the New York Botanical Garden. A systematic search through the collections at New York revealed the fact that about one-fifth of the species reported in the "List of Nashawena Plants" are substantiated by herbarium sheets. Fortunately, among this twenty per cent is an excellent specimen of T. discolor collected in the summer of 1901. The label bears no information as to the exact location on Nashawena where the plant was found, but the island is not a large one and it is to be expected that future investigations will lead to a discovery of the haunts of this rare orchid.

Here then, is a second station in Dukes County, Massachusetts for a species which may now definitely be restored to the flora of New England. And it is not totally without interest that both of these localities should be from areas which display an affinity with a continental flora rather than with that transplanted element of the flora of the southern coastal plain so characteristic of nearby portions of Barnstable, Dukes and Nantucket Counties.

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Deam's Grasses of Indiana.2—No one else is anywhere nearly so well qualified as Mr. Deam to write of the flora of Indiana; it is therefore in the natural course of things (though none the less praiseworthy for that) that his latest publication, a manual of the grasses of the state, is admirably comprehensive and thorough. From the introductory account of the morphology of the grass plant, by Dr. Paul Weatherwax, to the illustrated glossary at the end, no feature is lacking which such a work should have. There are carefully worked out keys; nearly every species has an original, detailed description drawn up from Indiana material; and at least a spikelet of every one is illustrated. The drawings—with one exception, by Dr. Weatherwax—are painstaking and essentially accurate throughout. Perhaps, in some cases, they are a bit conventionalized in the rendering of certain details—witness the difference in the pubescence of the spikelet as drawn in plate 75 and in Mrs. Chase's exquisitely finished little figure of the same thing on the following page.3

<sup>1</sup> A detailed account of the results of this research is incorporated in an extended survey of the Flora of the Elizabeth Islands soon to appear in Rhodora.

<sup>&</sup>lt;sup>2</sup> Deam, Charles C. Grasses of Indiana. Indiana Dept. of Conservation, Pub. 82. 256 pp., 86 pls., numerous maps and text figures. Indianapolis, Oct. 15, 1929.

<sup>&</sup>lt;sup>3</sup> One is conscious of a wistful desire that the difference in shape shown in the plates between the first glume of *Panicum huachucae* and *P. tennesseense* and of other members of their group were constant; but sad experience (as well as Hitchcock & Chase's lack of emphasis on this character) teaches that it is not.